

<form a<="" th=""><th>TML + D Attribute CTION = "url" FROM "fill TO PRINT TO "file na FROM SCI TO SCR THOD = "GET" "POST" "PAYMEN SQL < data</th><th>ename" ER ame" R</th><th>Description To/From Web Server URL From Terminal Local File To Local Printer To Terminal Local File From Smart Card Reader To Smart Card Reader Retrieve Data Store Data Directive to deliver INPUT data to a private Payment Network for authorization and settlement. SQL statement database table</th></form>	TML + D Attribute CTION = "url" FROM "fill TO PRINT TO "file na FROM SCI TO SCR THOD = "GET" "POST" "PAYMEN SQL < data	ename" ER ame" R	Description To/From Web Server URL From Terminal Local File To Local Printer To Terminal Local File From Smart Card Reader To Smart Card Reader Retrieve Data Store Data Directive to deliver INPUT data to a private Payment Network for authorization and settlement. SQL statement database table	
	A.A. II.			
	Attribute TYPE= NAME= VALUE= CHECKED= SIZE= MAXLENGTH=	Value "text" "password" "checkbox" "radio" "submit" "reset" <field name=""> <initial value=""></initial></field>	_ <u>Description</u>	
Attribute	HTML + DValue	Terminal Device	2	
TYPE =	"MSRT1" "MSRT2" "KEY" "PIN" "BCW" "MICR" "AMT" "INT" "LOCAL" "AUTOSUBMIT"	Mag Stripe Rea Mag Stripe Rea Terminal Comm PIN Pad Bar Code Wank Check MICR Re Dollar amount Integer key inp Input from Loc Submit FORM	eder - Track 2 nand Keypad I ader key input mask ut mask al Variable	
NAME=	ip_address fiost_phone tid work_key datetime deposit_acct	Local Variable - Local Variable - Local Variable - Local Variable - Local Variable -	Terminal's IP Address Local Internet Access Phone Number	

FIG.2

SQL Statements

The following SQL commands represent a subset of the entire command set that varies by database vendor.

AND COnstant	
OR ORDER=ASC DESC 2 GROUP= <name></name>	Request in ascending order descending by2's
INSERT TABLE= VALUES="constants"	Insert new data in database table
UPDATEFROM SET=field_name="constant" [WHERE= <condition>]</condition>	Update field_name in database table Update if WHERE clause is satisfied
DELETE FROM [WHERE= <condition>]</condition>	Delete all columns that satisfy WHERE clause
CREATE TABLE <table_name> PRIMARY KEY<name></name></table_name>	Create database table

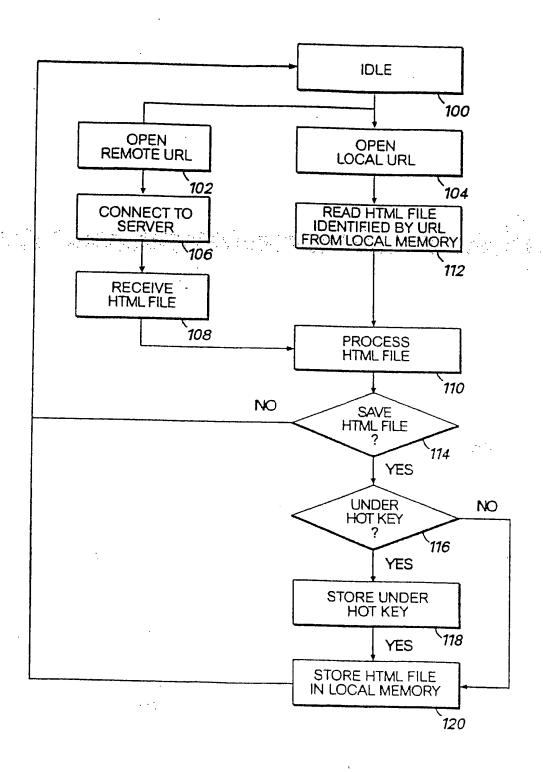


FIG.4

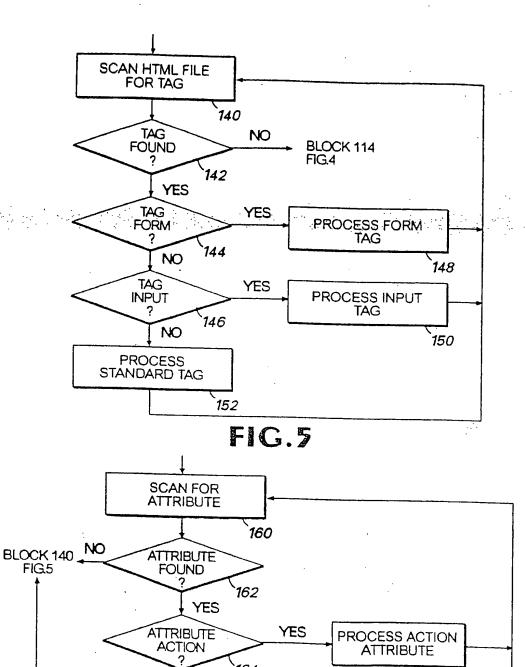


FIG.6

YES

164

166

NO

ATTRIBUTE METHOD

NO

168

170

PROCESS METHOD ATTRIBUTE

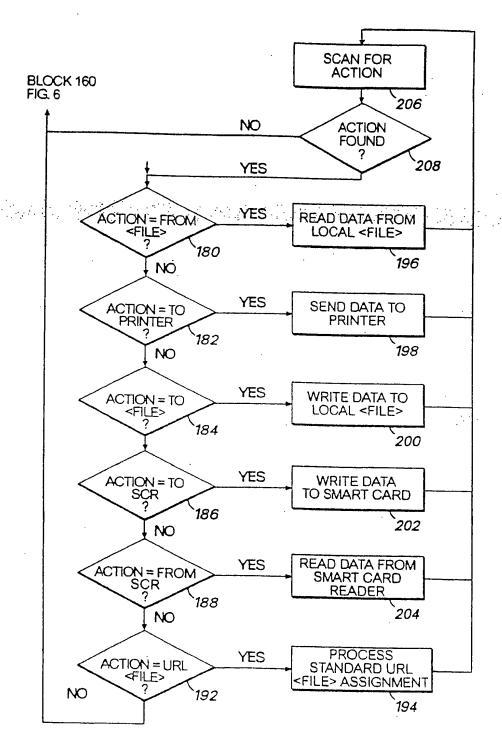


FIG.7

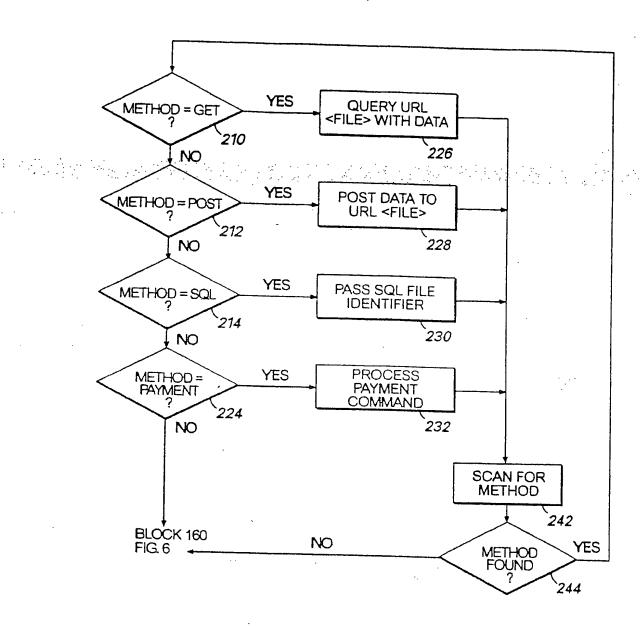


FIG.8

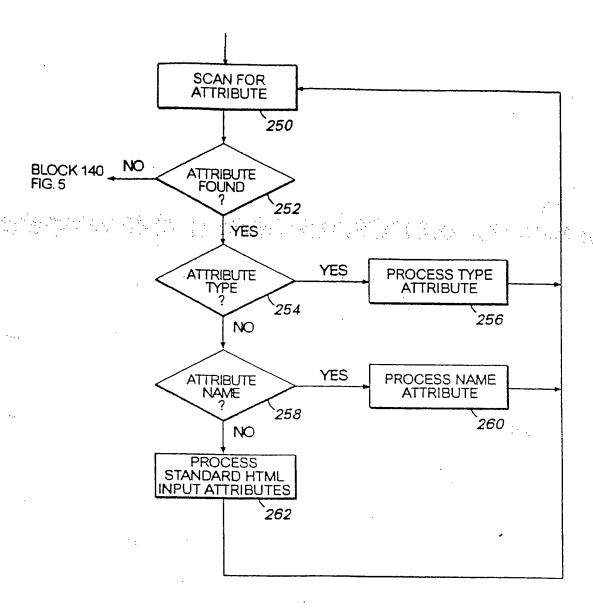


FIG.9

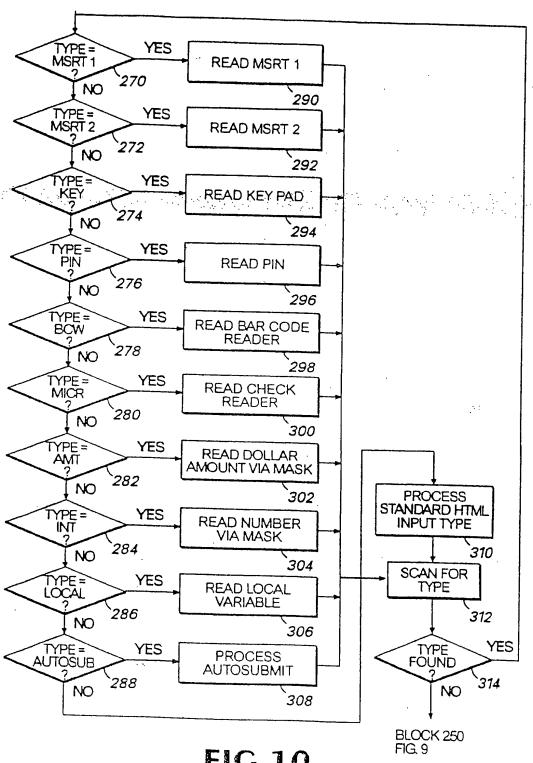


FIG. 10

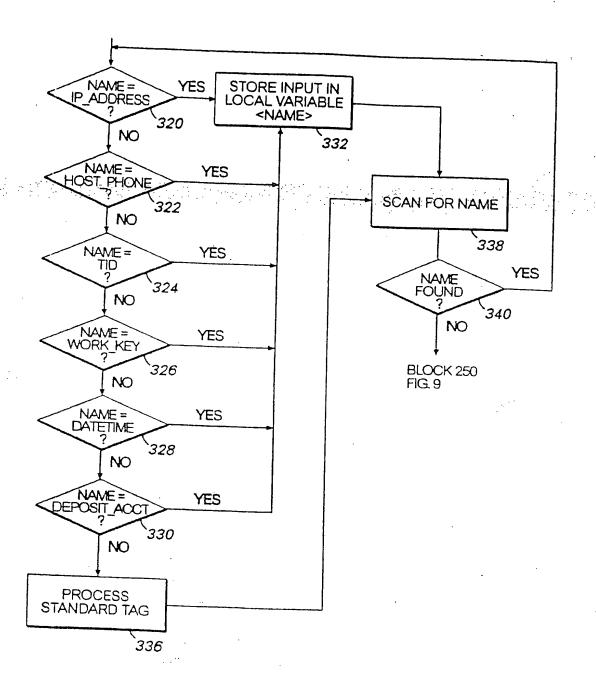


FIG.11

- <FORM ACTION=URL
- 2 <FORM ACTION=URL
- FORM ACTION=URL
- METHOD= GET>
- METHOD= POST>
- METHOD= SQL <database_name>



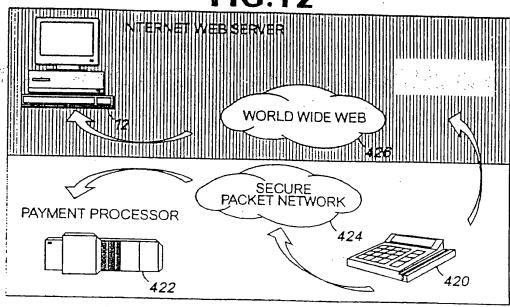


FIG. 13A

<FORM ACTION=<filename>

METHOD=PAYMENT>

<!NPUT TYPE=AUTOSUBMIT>

</FORM>

FIG.13B

<FORM ACTION=dsinet METHOD=PAYMENT>

<INPUT TYPE=LOCAL NAME=DEPOSIT_ACCT VALUE=123456890234567890>

<INPUT TYPE=AUTOSUBMIT>

</FORM>

FIG.13C

```
1.a. Transaction Request HTML+D
     <HTML>
                                `500
     <BODY>
    <FORM ACTION=dbase_URL
        METHOD=SQL
            "BEGIN TRAN
             IF NOT EXISTS ( SELECT substring(account, 1, 20) FROM auth_table)
                INSERT TABLE=log_table VALUES=(getdate(),tid, substring (account, 1,20),
                substring( account, 22, 4), amount)
SELECT * FROM log_table WHERE trandate = getdate().
             ELSE SELECT * FROM error_table WHERE error_no=1
COMMIT TRAN'>
   <INPUT TYPE="LOCAL" NAME=tid>
   ENTER ACCOUNT NUMBER:
   <!NPUT TYPE="MSRT2" SIZE=40 NAME=account>
   ENTER AMOUNT
   <INPUT TYPE="AMT" SIZE=8 NAME=amount>
   <INPUT TYPE="AUTOSUBMIT">
   </FORM>
   <BODY>
  </HTML>
1.b. Transaction Accepted Response
                                510
   <HTML>
   <80DY>
   <FORM ACTION=TO PRINTER METHOD=POST>
   JUNE 1 1995
                                     PURCHASE</P>
  TERMINAL ID:
                                     99999999</P>
   ACCOUNT NUMBER
                          EXP DATE:
                                          99/99</P>
  AMOUNT
                                       $9999.99</P>
  AUTH NUMBER
                                     999999999
  CUSTOMER SIGNATURE 
 </FORM>
 APPROVED:9999999994/P>
  </BODY>
 </HTML>
1.c. Transaction Declined or Submit Error Response
 <HTML>
                                            520
 <BODY>
 DECLINED MESSAGE>
 </BODY>
 </HTML>
```

FIG. 14

```
2.a. Transaction Request HTML+D
  <HTML>
                                550
  <BODY>
 <FORM ACTION=dbase_URL
 METHOD=SQL"BEGIN TRAN
        IF NOT EXISTS ( SELECT substring(account, 1, 20) FROM auth_table)
        BEGIN
              INSERT TABLE=log_table VALUES=(getdate(),tid, substring( account, 1,20), substring( account, 22, 4), amount)
       END
       ELSE BEGIN
                   SELECT * FROM error_table WHERE error_no=1
                    RETURN
              END
       INSERT TABLE=order_table VALUES=( getdate(), cust_name,address,city, state, zip,
             part_code, unit_price, tax, ship_method, ship_chrg, unit_price + tax +
       ship_chrg, substring( account, 1, 20), substring( account, 22, 4))
SELECT * FROM order_table WHERE trandate = getdate()
       COMMIT.TRAN">
CUSTOMER NAME:

AME=cust_name>

ADDRESS:
<INPUT TYPE="TEXT" SIZE=40 NAME=address>
CITY:
<INPUT TYPE="TEXT" SIZE=20 NAME=city>
STATE
<!NPUT TYPE="TEXT" SIZE=2 NAME=state>
ZIP:
<INPUT TYPE="TEXT" SIZE=10 NAME=address>
SCAN PART CODE:
<INPUT TYPE="BCW" SIZE=9 NAME=part_code>
ENTER UNIT PRICE:
<!NPUT TYPE="AMT" SIZE=8 NAME=unit_price>
TAX:
<!NPUT TYPE="AMT" SIZE=5 NAME=tax>
SHIPPING METHOD:
<INPUT TYPE="TEXT" SIZE=10 NAME=ship_method>
SHIPPING AMOUNT:
<!NPUT TYPE="AMT" SIZE=5 NAME=ship_chrg>
SLIDE CARD:
INPUT TYPE="MSRTZ" SIZE=40 NAME=account=
<!NPUT TYPE="SUBMIT">
</FORM>
</BODY>
</HTML>
```

FIG.15A

```
2.b. Transaction Accepted Response
  <HTML>
  <BODY>
  <FORM ACTION=TO PRINTER METHOD=POST>
 ORDER # 999999999 APPROVED
  JUNE 1 1995
             10:30AM
                     PURCHASE</P>
  TERMINAL ID:
                      ADDRESS:
 STATE XX
                ZIPXXXXXXXX
 ACCOUNT NUMBER
                EXP DATE:
                            99/99
 PART CODE:
                         999999999
 UNIT PRICE:
                          $9999.99
 SHIP METHODXXXXXXX CHARGE
                          $9999.99
 TOTAL AMOUNT:
                         $9999.99</b>
 AUTH NUMBER
                        · 999999999
 CUSTOMER SIGNATURE
 </FORM>
 </BODY>
 <HTML>
2.c. Transaction Declined or Submit Error Response
 <HTML>
                               560
 <BODY>
 DECLINED <error code>
 </BODY>
 <HTML>
```

```
3.a. Transaction Request HTML+D
<HTML>
<BODY>
<FORM ACTION=dbase_URL
METHOD SQL
    "INSERT TABLE=order_table VALUES=( getdate(), cust_name,address,city, state, zip,
          part_code, unit_price, tax, ship_method, ship_chrg,unit_price + tax +
ship_chrg, substring( account, 1, 20) ,substring( account, 22, 4))

SELECT * FROM order_table WHERE trandate = getdate()">
<INPUT TYPE="LOCAL" NAME=tid>
CUSTOMER NAME:
<INPUT TYPE="TEXT" SIZE=30 NAME=cust_name>
ADDRESS:
<INPUT TYPE="TEXT" SIZE=40 NAME=address>
CITY:
<INPUT TYPE="TEXT" SIZE=20 NAME=city>
STATE:
<INPUT TYPE="TEXT" SIZE=2 NAME=state>
ZIP:
<INPUT TYPE="TEXT" SIZE=10 NAME=address>
ENTER PART CODE:
<INPUT TYPE="TEXT" SIZE=10 NAME=part_code>
ENTER UNIT PRICE:
<INPUT TYPE="AMT" SIZE=8 NAME=unit_price>
TAX:
<INPUT TYPE="AMT" SIZE=5 NAME=tax>
SHIPPING METHOD:
<INPUT TYPE="TEXT" SIZE=10 NAME=ship_method>
SHIPPING AMOUNT:
<INPUT TYPE="AMT" SIZE=5 NAME=ship_chrg>
<INPUT TYPE="SUBMIT" >
</FORM>
</BODY>
</HTML>
```

FIG.16A

3.b. Transaction Accepted Response

```
<HTML>
<BODY>
<FORM ACTION=TO PRINTER METHOD=POST>
ORDER # 999999999 APPROVED
JUNE 1 1995
           10:30AM
                      PURCHASE</P>
TERMINAL ID:
                      99999999</P>
ADDRESS:
CITY: XXXXXXXXXXXXXXXXXXXXXXXXXXXX/p>
STATE: XX
               ZIPXXXXXXXXXX/p>
PART CODE:
UNIT PRICE:
SHIP METHOD:XXXXXXX CHARGE:
TOTAL AMOUNT:
</FORM>
<FORM ACTION=<file_name> METHOD=PAYMENT>
<INPUT TYPE=AUTOSUBMIT>
</FORM>
</BODY>
</HTML>
```

3.c. Transaction Declined or Submit Error Response

```
<HTML>
<BODY>
DECLINED <error code>
</BODY>
</HTML>
```

```
4.a. Transaction Request HTML+D
  <HTML>
  <BODY>
  <FORM ACTION=SCR1 METHOD=POST>
  <INPUT TYPE="LOCAL" NAME=tic>
  SLIDE CARD:
  <!NPUT TYPE="MSRT2" SIZE=40 NAME=track2>
  ENTER AMOUNT:
  <INPUT TYPE="AMT" SIZE=8 NAME=amount>
  <INPUT TYPE="LOCAL" NAME=work_key>

√NPUT TYPE="AUTOSUBMIT">

  </FORM>
  </BODY>
  </HTML>
4.b. Transaction Accepted HTML+D
  <HTML>
  <BODY>
  <FORM ACTION=TO PRINTER METHOD=POST>
  DATE:99/99/99
                               TIME:9999A</P>
  ACCOUNT NUMBER
  EXP DATE:
  AMOUNT:
                                  $9999.99</b>
 AUTH NUMBER
                                999999999
  </FORM>
 APPROVED:999999999
 <BODY>
 </HTML>
4.c. Transaction Declined or Submit Error Response
  <HTML>
  <BODY>
  DECLINED <error code>
  </BODY>
  </HTML>
```

FIG.17A

```
5.a. Transaction Request HTML+D
   <HTML>
   <BODY>
   <FORM ACTION=SCR2 METHOD=POST>
   <INPUT TYPE="LOCAL" NAME=tid>
   ENTER PIN:
   <INPUT TYPE="PASSWORD" SIZE=4 NAME=pin>
   ENTER AMOUNT:
   <INPUT TYPE="AMT" SIZE=8 NAME=amount>
<INPUT TYPE="LOCAL" NAME=work_key>
<INPUT TYPE="AUTOSUBMIT">
   </FORM>
   </BODY>
   </HTML>
5.b. Transaction Accepted HTML+D
   <HTML>
   <BODY>
  <FORM ACTION=TO PRINTER METHOD=POST>
   DATE-99/99/99
                                     TIME:9999A</P>
  ACCOUNT NUMBER
                         99999999999999999999/P>
   EXP DATE:
                                           99/99</P>
   AMOUNT:
                                        $9999.99</P>
  AUTH NUMBER
                                      999999999</P>
  </FORM>
  APPROVED:999999999999/P>
  </BODY>
  </HTML>
5.c. Transaction Declined or Submit Error Response
  <HTML>
  <BODY>
  DECLINED <error code>
  </BODY>
  </HTML>
```

FIG.17B

```
6.a. Transaction Request HTML+D
  <HTML>
  <BODY>
  <FORM ACTION=host_URL METHOD=POST>
  <INPUT TYPE="LOCAL" NAME=tid>
  SLIDE CARD
  <INPUT TYPE="MSRT2" SIZE=40 NAME=track2>
  <INPUT TYPE="PIN" SIZE=4 NAME=pin>
  ENTER AMOUNT:
  <INPUT TYPE="AMT" SIZE=8 NAME=amount>
  <INPUT TYPE="AUTOSUBMIT">
  </FORM>
  </BODY>
  </HTML>
6.b. Transaction Accepted HTML+D
  <HTML>
  <BODY>
  <FORM ACTION=TO PRINTER METHOD=POST>
  DATE:99/99/99
                                 TIME:9999A</P>
  TERMINAL ID:
                                  999999999</P>
  ACCOUNT NUMBER
                      999999999999999999999/P>
  EXP DATE:
                                      99/99</P>
  AMOUNT
                                   $9999.99</P>
  AUTH NUMBER
                                  999999999</P>
  </FORM>
  APPROVED:999999999999/P>
 </BODY>
 </HTML>
6.c. Transaction Declined or Submit Error Response
  <HTML>.
```

<BODY>

</BODY>

DECLINED <error code>

FIG.18

```
7.a. Transaction Request HTML+D
   <HTML>
  <BODY>
  <FORM ACTION=dbase_URL
          METHOD=SQL
                   "IF EXISTS ( SELECT account FROM check_table)
                        SELECT * FROM check_table WHERE account = DDAaccount
                   ELSE SELECT * FROM error_table WHERE error_no=1">
  <INPUT TYPE="LOCAL" NAME=tid>
  SCAN CHECK:
  <INPUT TYPE="MICR" SIZE=20 NAME=account>
  ENTER AMOUNT
  INPUT TYPE="AMT" SIZE=8 NAME=amount>
  <INPUT TYPE="AUTOSUBMIT">
  </FORM>
  </BODY>
  </HTML>
7.b. Transaction Accepted Response
  <HTML>
  <BODY>
  <FORM ACTION=TO PRINTER METHOD=POST>
  DATE:99/99/99
                                 TIME:9999</P>
  TERMINAL ID:
                                 999999999</P>
  ACCOUNT NUMBER
                      99999999999999999999/P>
  TRUCIMA
                                  $9999.99</P>
  AUTH NUMBER
                                 <FORM>
  APPROVED:99999999994P>
  <BODY>
 </HTML>
7.c. Transaction Declined or Submit Error Response
  <HTML>
  <BODY>
  DECLINED <error code>
  </BODY>
```

FIG.19

</HTML>

```
8.a. Transaction Request HTML+D
               <HTML>
                <BODY>
               <FORM ACTION=cbase_URL
                                                 METHOD=SQL
                                                                                       BEGIN TRAN
IF NOT EXISTS (SELECT substring(account, 51, 20) FROM auth_table)
                                                                                                                    BEGIN
SELECT cur_bal FROM cust_tbl WHERE substring(account 51, 20)=account
SELECT amount = amount - (points / 01)
SELECT cur_bal = cur_bal + (amount * 01)
UPDATE TABLE = cur_bal + (amount * 01)
UPDATE TABLE = cur_bal + (amount * 01)
SELECT * FROM log_fable WHERE trandate = getdate()
INSERT TABLE = table VALUES = (getdate(), tid, substring(account 51, 20), substring(account 72, 4), amount)
FND
                                                                                                                     END
         END
ELSE SELECT * FROM error_table WHERE error_no=1"
COMMIT TRAN">
<INPUT TYPE="LOCAL" NAME=tid>
ENTER ACCOUNT NUMBER:
<INPUT TYPE="MSRT1" SIZE=90 NAME=account>
ENTER AMOUNT
<INPUT TYPE="AMT" SIZE=8 NAME=amount>
REDEEM POINTS?
<INPUT TYPE="INT" SIZE=6 NAME=points>
<INPUT TYPE="AUTOSUBMIT">
</FORM>
           </FORM>
           </BODY>
8.b. Transaction Accepted Response
            <HTML>

⟨FORM ACTION=TO PRINTER METHOD=POST>
                                                                                                                                                                  PÜŘCHĀŠE</P>
              JUNE 1 1995
                                                                                         10:30AM
              TERMINAL ID:
           ACCOUNT NUMBER
EXP DATE:
AMOUNT
                                                                                                                                                                       $9999995/P>
           AUTHNUMBER
                                                              CUSTOMER SIGNATURE
           THANK YOU!:
         <FORM>
        APPROVED:9999999994/P>
</BODY>
 8.c. Transaction Declined or Submit Error Response
         <hr/>
<hr/>
<br/>
<br/>
BODY><br/>
DECLINED <MESSAGE><br/>
<br/>
<
                                                                                                                                                                      FIG.20
           <HTML>
```

```
9.a. Transaction Request HTML+D
  <HTML>
  <BODY>
  <FORM ACTION=dbase_URL
         METHOD=SQL
                  "SELECT fields FROM table WHERE condition">
  <!NPUT TYPE="LOCAL" NAME=tic>
  ENTER SEARCH TABLE NAME:
  <INPUT TYPE="TEXT" SIZE=10 NAME=table>
  ENTER SEARCH FIELD NAMES:
  <INPUT TYPE="TEXT" SIZE=100 NAME=fields>
  ENTER SEARCH CONDITION:
  <INPUT TYPE="TEXT" SIZE=50 NAME=condition>
  <INPUT TYPE="AUTOSUBMIT">
  </FORM>
  </BODY>
  <HTML>
9.b. Transaction Response
  <HTML>
  <BODY>
  <FORM ACTION=TO PRINTER METHOD=POST>
  FIELD1 FIELD2 FIELD3
                              FIELDN
                                       XXXXX
                                       XXXXX
         XXXXX
                  XXXXX
                               XXXXX
                                       XXXXX XXXXX
  </FORM>
  </BODY>
```

</HTML>

```
10.a Transaction Request HTML+D
 <HTML>
 <BODY>
 <FORM ACTION=dbase_URL
         METHOD=SQL
         * INSERT TABLE=log_table VALUES=( getdate(), tid, gross_sales, opn_chks, wids,
        emp_disc, mgr_disc, vip_card, man_over, coupons, sales_tax, c_dep1, c_dep2, c_dep3, c_dep4, chg_fund,cc_dep, batch_no, chrg_sales, paid_outs, co_sales, cc_sales, te_sales, gross_sales - opn_chks - voids - emp_disc - mgr_disc - vip_card-man_over - coupons - sales_tax, gross_sales - opn_chks - voids -
emp_disc - mgr_disc - vip_card - man_over - coupons - c_dep1 - c_dep2 - c_dep3 - c_dep4 - cng_fund - cc_dep - batch_no - chirg_sales - paid_outs)

SELECT * FROM log_table WHERE trandate = getdate()">
<INPUT TYPE="LOCAL" NAME=tid>
ENTER GROSS SALES
<INPUT TYPE="AMT" SIZE=8 NAME=gross_sales>
ENTER OPEN CHECKS:
<INPUT TYPE="INT" SIZE=7 NAME=opn_chks>
ENTER VOIDS:
<INPUT TYPE="INT" SIZE=7 NAME=voids>
ENTER EMP DISCOUNTS:

<INPUT TYPE="INT" SIZE=7 NAME=emp_disc>
ENTER MGR DISCOUNT:
<INPUT TYPE="INT" SIZE=7 NAME=mgr_disc>
ENTER VIP CARD:
<INPUT TYPE="INT" SIZE=7 NAME=vip_card>
ENTER MANUAL OVERRINGS:
<INPUT TYPE="INT" SIZE=7 NAME=man_over>
ENTER COUPONS:
<INPUT TYPE="INT" SIZE=7 NAME=coupons>
ENTER SALES TAX:
INPUT TYPE="AMT" SIZE=8 NAME=sales_tax>
ENTER CASH DEPOSIT 1:
<INPUT TYPE="AMT" SIZE=8 NAME=c_dep1>
ENTER CASH DEPOSIT 2
<!NPUT TYPE="AMT" SIZE=8 NAME=c_dep2>
ENTER CASH DEPOSIT 3:
<INPUT TYPE="AMT" SIZE=8 NAME=c_dep3>
ENTER CASH DEPOSIT 4:
<INPUT TYPE="AMT" SIZE=8 NAME=c_dep4>
ENTER CHANGE FUND:
<INPUT TYPE="AMT" SIZE=8 NAME=chg_fund>
```

FIG.22A

```
ENTER CC DEPOSIT:
   <INPUT TYPE="AMT" SIZE=8 NAME=cc_dep>
   ENTER BATCH #.
   <!NPUT TYPE="INT" SIZE=3 NAME=batch_no>
ENTER CHARGE SALES:
   <INPUT TYPE="AMT" SIZE=8 NAME=chrg_sales>
   ENTER PAID OUTS:
  <INPUT TYPE="INT" SIZE=8 NAME=paid_outs>
ENTER CARRY OUT SALES:
<INPUT TYPE="AMT" SIZE=8 NAME=co_sales>
   ENTER CREDIT CARD SALES
   <INPUT TYPE="AMT" SIZE=8 NAME=cc_sales>
  ENTER TAX EXEMPT SALES:
<INPUT TYPE="AMT" SIZE=8 NAME=te_sales>
<INPUT TYPE="AUTOSUBMIT">
   </FORM>
   </BODY>
   </HTML>
10.b. Transaction Response
    <HTML>
    <BODY>
   DAILY REPORT</P>
999999999/P>
                                                        999999.99</P>
   VOIDS
EMP DISCOUNTS
MANAGER DISCOUNTS
VIP CARD
COUPONS
MANUAL OVERRINGS
SALES TAX
CASH DEPOSIT 1
CASH DEPOSIT 2
CASH DEPOSIT 3
CASH DEPOSIT 4
CASH DEPOSIT 5
CHANGE FUND
CC DEPOSIT
CHARGE SALES
PAID OUTS
CARRY OUT SALES
                                                         99999.99</P>
                                            99
99
99
                                                         99999.99</P>
99999.99</P>
99999.99</P>
                                            99
                                            99
                                                        999999.99</P>
                                                        999999.99</P>
                                                        9999999.99</P>
                                                        999999.99</P>
                                                        999999,99</P>
                                         999
                                                         999999.99</P>
                                                        999999.99</P>
                                            99
                                                          99999.99</P>
    CARRY OUT SALES
CREDIT CARD SALES
TAX EXEMPT SALES
                                                        999999.99</P>
                                                         999999.99</P>
                                                        999999.99</P>
   NET SALES
OVER/SHORT
                                                           9999999</P>
                                                           9999999</P>
   </FORM>
</BODY>
   </HTML>
```

FIG.22B

11.a. Transaction Request HTML+D

```
<HTML>
<BODY>
<FORM ACTION=MAIL TO: mail_to>
ENTER MAIL ADDRESS:
<INPUT TYPE="TEXT" SIZE=20 NAME=mail_to>
ENTER MESSAGE:
<INPUT TYPE="TEXT" SIZE=100>
<INPUT TYPE="AUTOSUBMIT">
</FORM>
</BODY>
 </HTML>
                                                               FIG.23
```

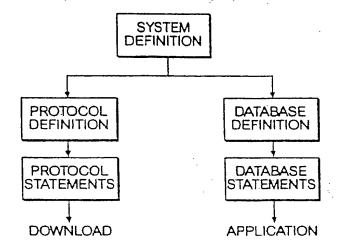


FIG.24A

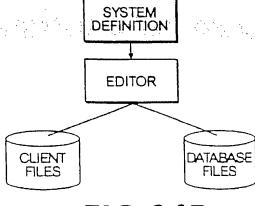


FIG.24B